ENVIRONMENTAL ASSESSMENT

for the

Galice Creek Restoration Project

EA# OR117-04-08

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
GRANTS PASS RESOURCE AREA

August 2004

Dear Reader:

We appreciate your interest in the BLM's public land management activities. We also appreciate your taking the time to review this environmental assessment (EA). If you would like to provide us with written comments regarding this project or EA, please send them to Abbie Jossie, Field Manager, Grants Pass Resource Area at 3040 Biddle Road, Medford, OR 97504 or email them to *or110mb@or.blm.gov*.

If you would like to comment confidentially, please be aware that comments, including names and addresses of respondents, will be available for public review or may be held in a file available for public inspection and review unless you request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this clearly at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or officials of organizations or businesses will be made available for public inspection in their entirety.

I look forward to your continued cooperation in the management of our public lands.

Abbie Jossie
Field Manager
Grants Pass Resource Area

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
EA COVER SHEET

RESOURCE AREA: Grants Pass

ACTION/TITLE: Galice Creek Restoration Project # OR117-04-08

LOCATION: Grants Pass Resource Area, Josephine County, Oregon

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TABLE OF CONTENTS

1.0 PURPOSE OF AND NEED FOR ACTION 1

1.1 INTRODUCTION 1
1.2 PURPOSE OF AND NEED FOR ACTION 1
1.3 PROJECT LOCATION 2
1.4 ISSUES RELEVANT TO THE PROJECT 2
1.5 LAND USE ALLOCATION AND OBJECTIVES 2

2.0 PROPOSED ACTION AND ALTERNATIVES 2

2.1 ALTERNATIVE 1: NO ACTION 2
2.2 ALTERNATIVE 2: PROPOSED ACTION 2

3.0 ENVIRONMENTAL CONSEQUENCES 3

3.1 FISHERIES 3
3.2 BOTANY 5

4.0 PUBLIC AND AGENCIES CONTACTED 5

APPENDIX A. PROJECT MAP 6

1.0 Purpose of and Need for Action

1.1 Introduction

The purpose of this environmental assessment (EA) is to assist in the decision-making process by assessing the environmental and human effects resulting from implementing the proposed project or alternatives. The EA will also assist in determining if an environmental impact statement (EIS) needs to be prepared or if a finding of no significant impact (FONSI) is appropriate.

This EA tiers to or is consistent with the following documents:

1. *Final EIS and Record of Decision for the Medford District Resource Management Plan* (RMP) (June 1995)
2. *Final Supplemental EIS on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl* (February 1994)
3. *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* and its attachment A entitled *Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (NFP)(April 1994).
4. *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (January 2001)
5. *Record of Decision Amending Resource Management Plans for Seven Bureau of Land Management Districts and Land and Resource Management Plans for Nineteen National Forests within the Range of the Northern Spotted Owl. Decision to Clarify Provisions Relating to the Aquatic Conservation Strategy.* (March 2004)
6. *Record of Decision to Remove or Modify the Survey and Manage Mitigation Measure Standards and Guidelines in Forest Service and Bureau of Land Management Planning Document within the Range of the Northern Spotted Owl*. (March 2004); and
7. *Final Supplemental EIS* (December 2003), *ROD and Resource Management Plan Amendment for Management of Port-Orford Cedar in Southwest Oregon, Coos Bay, Medford, and Roseburg Districts* (May 2004).

1.2 Purpose of and Need for Action

North Fork Galice, South Fork Galice and lower mainstem Galice Creeks have a history of instream mining activity. Associated with mining activities is an old water diversion structure, constructed of three log weirs, located on North Fork Galice Creek. The jump height over these structures limits migration of coho salmon, chinook salmon and steelhead, as well as and other aquatic organisms.

Historically, Galice Creek supported strong runs of salmon and steelhead. Currently, the South Fork, North Fork and mainstem Galice Creeks provide poor habitat conditions. A lack of cover for rearing juvenile fish, suitable stable spawning gravel, and refugia from high stream flow velocity were identified as limiting factors.

Salmonids require unimpaired fish passage to complete life history requirements. Galice Creek is a unique watershed that provides cool water temperatures and sufficient flow during the summer months. In watersheds providing summer refugia, it is important for adult and juvenile salmonids to have unimpaired access to populate a greater percentage of the watershed. Likewise, with adequate water

quality, fish production may be increased with improved channel complexity and habitat conditions.

The need for this project is threefold: 1) Improve aquatic connectivity. 2) Increase channel complexity. 3) Collaborate with the mining community to improve watershed health.

1.3 Project Location

The project is located on BLM land in the Lower Galice Creek watershed: T35S, R8W, Sec. 2 and 3 (see Appendix A, Project Map).

1.4 Issues Relevant to the Project

Issues identified during scoping include:

- A diversion dam on North Fork Galice Creek restricts fish passage
- Lack of structure in the creek has increased flow velocity, reducing high flow velocity refugia and retention of spawning gravels

1.5 Land Use Allocation and Objectives

The project area is located in the riparian reserve land allocation. Objectives for this land allocation are in the Northwest Forest Plan and the Medford District Resource Management Plan.

2.0 Proposed Action and Alternatives

2.1 Alternative 1: No Action

The no action alternative is defined as not implementing the proposed action and serves as a baseline or reference point for evaluating the environmental effects of the proposal. Inclusion of this alternative is done without regard to whether or not it is consistent with the Medford District Resource Management Plan.

2.2 Alternative 2: Proposed Action

The objectives are to increase aquatic connectivity in the North Fork Galice Creek watershed and to increase channel roughness and complexity. This restoration project would modify a diversion dam on North Fork Galice Creek and place boulder clusters in Galice Creek.

Hand tools would be used to modify a series of three weirs on North Fork Galice Creek. The two downstream weirs each consist of a single log approximately 28” in diameter cabled to bedrock. Using a chainsaw and a pry bar, a 5’ section of the log would be removed, creating a passage for migrating fish. The rest of the log would remain intact. The log ends would provide channel structure and the notch would focus flow energies, maintaining the present scour pools. The upstream weir consists of two logs, one large footer log and a smaller top log. The top log, 12” in diameter and 14’ long, would be removed with a chain and winch.

Approximately 15 boulder clusters would be placed in mainstem Galice Creek by an excavator tractor. Boulders originating from the Galice slide that are lying on the Galice Access road would be used. The boulders would be placed along three reaches (Figure 1); each approximately 100' in length. During boulder placement, access to each reach would be at one point only, using existing roads. Along the access road to the upstream boulder placement site on the mainstem Galice Creek blackberries would be disturbed and four alders less than 5" in diameter would be removed. The second boulder placement reach has a cleared access route to Galice Creek. No vegetation would be disturbed. The lower reach, similar to the upper reach, has blackberries growing in the access road and alders along the side. The blackberries would be disturbed by heavy equipment and a few alders would be limbed to provide equipment access. The equipment would move up and downstream in the channel to place the boulders.

3.0 Environmental Consequences

Only substantive, site-specific environmental changes related to implementing the proposed action or alternatives are discussed in this chapter. If an ecological component is not discussed, the resource specialist considered effects and determined the proposed action would have minimal or no effects. Specifically, the following were found not to be affected by the proposed action or alternatives: air quality; areas of critical environmental concern (ACEC); prime or unique farmlands; recreation; wildlife; cultural resources; wild and scenic rivers; and wilderness areas.

3.1 Fisheries

3.1.1 Affected Environment

Galice Creek is a perennial fish bearing stream characterized by riffles and deep pools formed around bedrock. Fish presence includes coho and chinook salmon, steelhead/rainbow trout, cutthroat trout, and sculpin. Pacific lamprey likely inhabit Galice Creek as well. Galice Creek is not on the Departmental of Environmental Quality's 2002 303(d) list for water quality impaired water bodies.

The Bureau of Land Management completed a comprehensive aquatic habitat survey of Galice Creek in September, 2003. To assist in data interpretation, the Oregon Department of Fish and Wildlife (ODFW) identified fish habitat benchmark standards. These benchmarks provide a means of assessing the quality of fish habitat, as well as identifying limiting factors for trout or salmon production. The survey concluded that large wood, pool area, pool complexity, and spawning gravel were below desirable levels.

The survey also found, and is supported by local observations, that the channel has degraded. Local residents identified channel reaches that once contained gravel and spawning salmon. Subsequently, the gravel washed out, channel bed elevation dropped 6-12", and spawning salmon have not returned. Throughout the surveyed reach, high mounds of old mining tailings were found adjacent to the creek. A common gold mining practice involved removing material from the creek bed and placing it on the floodplain or terrace. This practice resulted in reduced channel bed elevation by several feet, channel degradation and reduced channel interaction with the floodplain.

Floodplains and large instream roughness elements, such as large wood and boulders, dissipate stream energy during peak flow events. The combined loss of floodplain interaction with a lack of large instream wood results in high flow velocities. Higher flow velocities, in turn, result in decreased deposition of spawning gravel and increased gravel scour. These processes greatly reduce spawning opportunities and egg survival, respectively.

In the absence of large wood and complex pools, the channel does not provide adult salmonids with low velocity areas to rest during high winter and spring flows. Similarly, young, emerging fish are quickly washed from Galice Creek due to a lack of low velocity rearing habitats.

On North Fork Galice Creek, at river mile 0.75, are a series of three log weirs once used to impound water for a diversion ditch. The log weirs impede fish passage to the upper reaches of North Fork Galice Creek.

3.1.2 Environmental Consequences

Alternative 1: No Action
The no action alternative would maintain current channel conditions. High stream flow velocities would continue to flush gravel out of Galice Creek, increase bed scour, and fetter upstream migration. Gravel retention would remain low, sustaining the undesirable level of spawning habitat. Additionally, juvenile fish, particularly coho, require slow, backwater habitats for rearing. The lack of large structure would continue to decrease available rearing habitat. The no action alternative would also result in the continued presence of the log weirs which restrict salmonid migration.

Several residents along the creek noted a reduction in both gravel and fish numbers over the last 20 years. If spawning gravel remains low and the migration impediment remains, salmonid production may continue to decrease.

Alternative 2: Proposed Action
Because hand tools would be used to remove sections of the log weirs in North Fork Galice Creek, there would be very little disturbance to banks or riparian vegetation. Sediment, composed of small boulders, cobble and gravel, immediately upstream of the notch would scour and move downstream. Bedrock below the accumulated sediment would limit the area of scour to inconsequential levels (approximately 8' long by 8' wide by 6" deep). The diversion point head gate and ditch would remain, allowing for future use of the diversion.

Using a single access route for each boulder cluster placement location would minimize bank disturbance and streamside instability. Similarly, there would be no reduction in stream shade or future recruitment of large wood. In all cases, vegetation and soil disturbance would be minimal and short term because blackberries would quickly revegetate the site. Therefore, additional inputs of sediment to the stream are not expected due to use of the access roads.

The Galice Creek channel bed is well armored, dominated by small boulders to cobbles. Due to the robust substrate, stream bed disturbance due to instream work would be minimal, limited to displacement of surface cobbles. Cobble displacement would release fine sediment, creating short term increases in turbidity. Sediment movement would be limited to sediment currently stored in the channel; no new sediment would be delivered to the stream. Instream work would be conducted between July 1 and September 15, according to the ODFW guidelines. Flows are minimal at this time and there are no eggs or fry in the gravel. Therefore, there will be negligible direct effects on salmonid populations. Should the project require working past the September 15th deadline and as long as weather conditions continue to permit work with minimal impact to fish, BLM would request a waiver from ODFW.

Considering the minimal and short term disturbance to vegetation, streambed and fish, there would be no significant effects to riparian or channel conditions or fish populations.

3.2 Botany

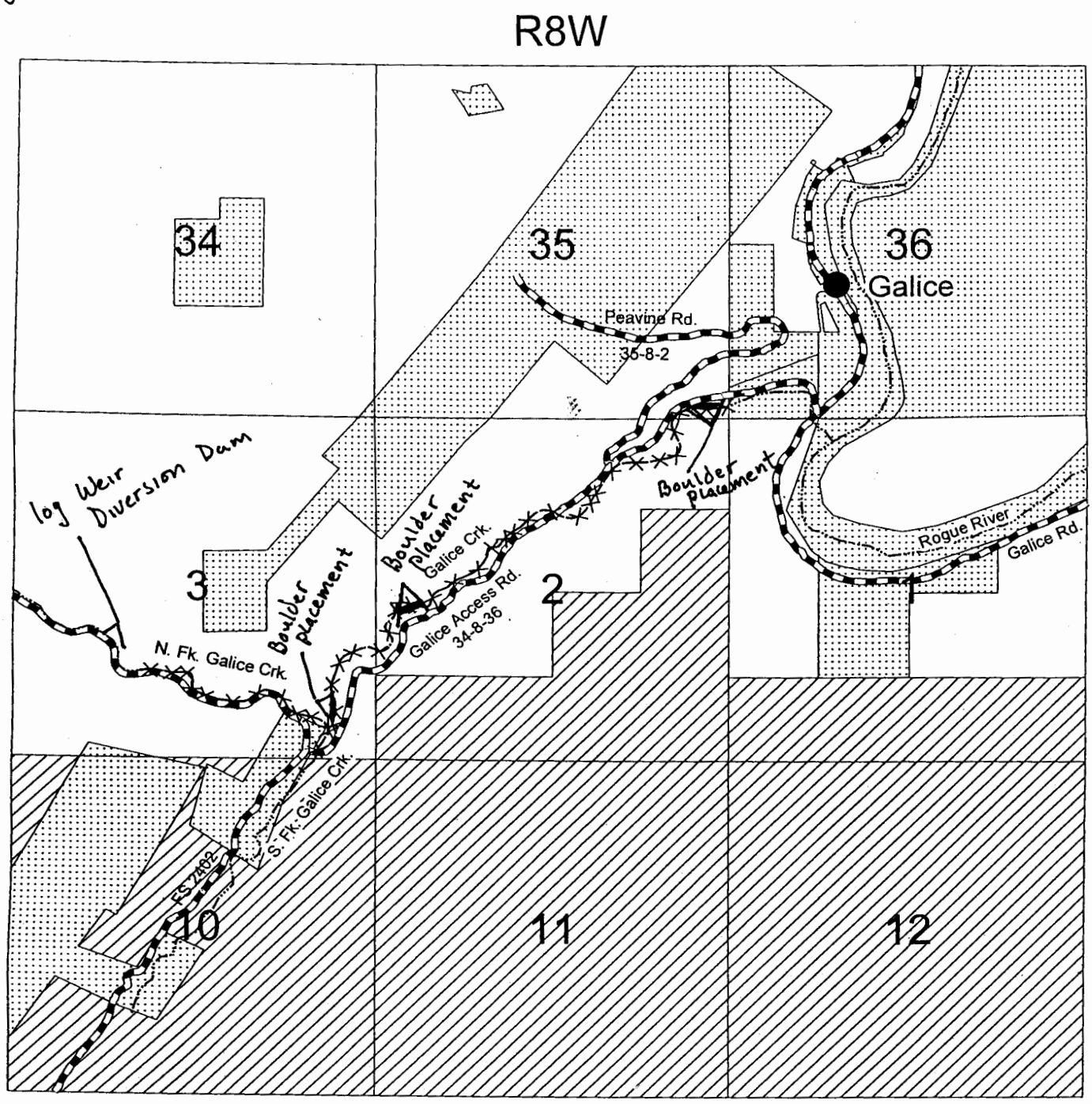
The project area is within the range of the federally endangered *Fritillaria gentneri*. A botany survey was completed on July 27, 2004. No Bureau special status, threatened, or endangered plant species or potential habitat were discovered within the project area. Therefore, the project would not affect any of these species.

4.0 Public and Agencies Contacted

Prior to developing this environmental assessment, BLM sent 42 project scoping letters to the public and agencies (Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon Department of Forestry, Siskiyou National Forest, Josephine County, and Oregon Department of Water Resources).

Through the public involvement process, an issue surfaced regarding poor fish passage at the mouth of Galice Creek. The team examined the fish passage concern as a possible issue and alternative to be included in the environmental assessment. This alternative was eliminated from further analysis. BLM and ODFW agreed that at certain flows fish passage is difficult at this location. However, there are no artificial structures or barriers. The barrier results from water flowing subsurface through material deposited by the Rogue River and Galice Creek. This is a natural circumstance that represents conditions on most tributary streams to the Rogue River. The salmon and steelhead life cycle has adapted by holding in the mainstem Rogue River until winter and spring flows increase water levels permitting upstream migration. Providing low flow passage through the mouth of Galice Creek would require substantial channel modification within the Rogue River floodplain, which would affect wild and scenic values, sediment transport and deposition, and channel migration.

Figure 1. Project Location



Galice Creek Restoration Project

PROPOSED PROJECT LOCATION

BLM

OTHER

USFS

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May 18, 2004

John McGlothlin

Attachment 1-1